

# **A STUDY OF SCIATIC NERVE AND ITS VARIATIONS WITH ITS CLINICAL SIGNIFICANCE**

## **ABSTRACT**

### **BACKGROUND:**

The Sciatic Nerve is the widest nerve of the body, it is derived from the lumbosacral plexus from the ventral rami of L4 to S3 spinal nerves. The Sciatic Nerve enters the gluteal region under the piriformis muscle. The purpose of this study is to identify the variations in the course and branching pattern of the Sciatic Nerve and its relation to the Piriformis muscle, which may lead to various clinical manifestations.

### **MATERIALS AND METHODS:**

50 Embalmed human adult lower limb Specimens were used for this study. Gluteal region and posterior aspect of thigh on both sides were dissected to expose the Sciatic Nerve. Variations in the Sciatic Nerve, its relationship to piriformis and the point of bifurcation and trifurcation if any were noted.

### **RESULTS:**

50 lower limbs were studied of which 47 showed normal anatomy of sciatic nerve, 6 lower limbs showed variations of which 2 lower limbs showed High division of Sciatic Nerve (2%) and 4 Lower limbs showed trifurcation of sciatic nerve (4%).

## **CONCLUSION:**

The knowledge regarding the level of division and distribution of the Sciatic nerve and its location is of great importance. Sciatic Nerve is frequently involved in daily medical practice. Its long course makes it vulnerable to nerve injury, hence the variations of Sciatic nerve, its relation to spiriformis muscle is useful for all medical professionals, especially during posterior hip surgeries, sciatic nerve decompression, total hip replacement, sciatic nerve injury during deep intramuscular gluteal injections and failed sciatic nerve block during anaesthetic procedures.

## **KEYWORDS :**

Sciatic nerve, Tibial nerve, Common Peroneal nerve, High division, Trifurcation, Piriformis muscle.